

## Patent Abstracts of Japan

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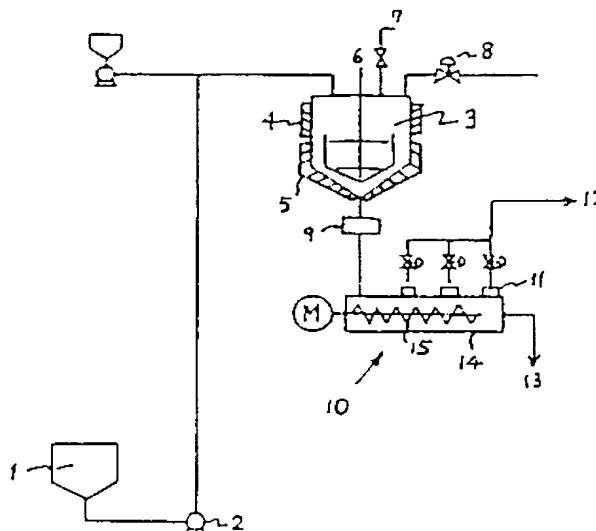
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TITLE : VENT TYPE EXTRUDER



**ABSTRACT :** **PURPOSE:** To obtain a vent type extruder capable of providing a plastic optical fiber having excellent corrosion resistance and good light transmission properties by using a metal alloy having specific Cr and Ni content and high Rockwell hardness as a material for cylinder and screw.

**CONSTITUTION:** Methyl methacrylate(MMA) purified by vacuum distillation is stored in a storage tank 1, fed to a polymerization reaction tank 3, polymerized by heating under nitrogen atmosphere introduced from a nitrogen introduction line 7 and fed to a vent type extruder 10 using a metal alloy having 10-25% Cr content and  $\leq 2\%$  Ni content and  $\geq 40$  Rockwell C scale hardness as a material for cylinder 14 and screw 15 and unreacted monomer in the polymer is removed from plural vent ports 11 by raising the temperature in the vent type extruder to  $180^{\circ}\text{C}$  in the inlet and  $230^{\circ}\text{C}$  in the extruding part and then the resultant polymer is introduced to a composite spinning machine and spun using a fluorine-containing methacrylate copolymer as a sheath component to provide the optical fiber.

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